UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NEW ENGLAND
1 CONGRESS STREET, BOSTON, MASSACHUSETTS 02114-2023

MEMORANDUM

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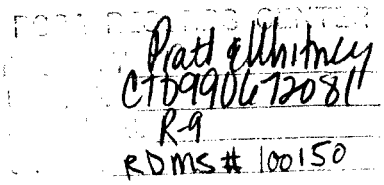

DATE: August 10, 2001

SUBJ: EPA Comments on Pratt & Whitney's Remedial Action Work Plan for Willow Brook and Willow Brook Pond

FROM: Kim Tisa, PCB Coordinator
Pesticides, Toxics, and Urban Programs Unit
Office of Ecosystem Protection

THROUGH: Juan A. Pérez, RCRA Facility Manager
RCRA Corrective Action
Office of Site Remediation and Restoration

TO: Lauren N. Levine, Environmental Project Manager
Environmental, Health & Safety Group Administration
Pratt & Whitney

Attached you will find comments on the review of the following documents as they pertain to the federal PCB regulations under the Toxic Substances Control Act.

- *Remedial Action Work Plan, November 2000, Revised May 2001 (RAWP)*
- *May 31, 2001 Response to March 21, 2001 EPA Comments*
- *May 31, 2001 Response to May 18, 2001 DEP Comments*
- *June 21, 2001 Response to June 8, 2001 DEP Comments*
- *July 13, 2001 Response to July 6, 2001 DEP Comments w/ attachments*
- *July 26, 2001 Response to DEP Comments w/o attachments*
- *Dust Control Plan, May 2001*

These comments are not meant to supersede any other federal, state or local regulations/requirements. Further, it appears that some of these documents may have been revised. If so, some of the comments may not apply.

cc: Richard C. Hathaway, Jr., L.E.P.
Environmental Analyst 3
Permitting, Enforcement & Remediation Division
Bureau of Water Management - CT Department of Environmental Protection

Attachment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION I

1 CONGRESS STREET, SUITE 1100, BOSTON, MASSACHUSETTS 02114-2023

MEMORANDUM

DATE: August 10, 2001

SUBJ: Pratt & Whitney Remedial Action Plan
Willow Brook and Willow Brook Pond
East Hartford, CT

FROM: Kim Tisa, PCB Coordinator
Pesticides, Toxics, and Urban Programs Unit
Office of Ecosystem Protection

TO: Juan Perez, Project Manager
RCRA Corrective Action

As requested, I have reviewed the following documents for the above reference site:

- *Remedial Action Work Plan, November 2000, Revised May 2001 (RAWP)*
- *May 31, 2001 Response to March 21, 2001 EPA Comments*
- *May 31, 2001 Response to May 18, 2001 DEP Comments*
- *June 21, 2001 Response to June 8, 2001 DEP Comments*
- *July 13, 2001 Response to July 6, 2001 DEP Comments w/ attachments*
- *July 26, 2001 Response to DEP Comments w/o attachments*
- *Dust Control Plan, May 2001*

The following comments are based on my review of these documents as they pertain to the federal PCB regulations under the Toxic Substances Control Act and are not meant to supersede any other federal, state or local regulations/requirements. Further, it appears that some of these documents may have been revised. If so, the following comments may not apply.

RAWP

1. Page 17, 3rd complete paragraph, last sentence - For clarification, §761.79(c) contains no provisions for decontamination of water; the correct citation is §761.79(b).

2. Page 18, **Former Oil/Water Separator**, 2nd paragraph - A description of the additional soil sample collection procedure to be used prior to implementing remediation of this area should be described here.

3. Page 22, **Site Restoration** - The 2nd sentence states "The restoration of the waterway and wetland were previously described." A reference should be provided here.

4. Pages 29-30, **Sample Collection** - The text describes the SOP for sample collection and compositing. In EPA's March 2001 letter to P&W, I had recommended that compositing be done in the laboratory due to sampling concerns. P&W indicated in its May 31, 2001 response to EPA that it preferred field compositing and proposed an additional step for sample collection. I am not convinced that this step will provide sound representative samples for purposes of compositing. P&W argues that, due to the proximity of each grab sample to the other, the variability of moisture content will be minimal. This may or may not be true. However, if this is the procedure P&W wishes to implement in the field, I suggest that an additional step be added to the procedure; specifically that prior to compositing, discrete grab samples be allowed to "rest" so that any free water can be allowed to separate (and decanted) prior to compositing. To expedite sample collection, dedicated syringes would have to be used for each sampling location; however, EPA also does not recommend that the same syringe be used for the individual grab samples as proposed in the RAWP. Prior to finalizing its composite sampling scheme, EPA encourages P&W to coordinate these activities with its selected laboratory to insure that sufficient sample volumes will be collected for all COCs.

5. Page 30, last paragraph - The text states that a visual characterization will be performed on each confirmatory sample. For clarification, visual observations should be made at each sampling location. In the event that visible staining or discoloration is noted, a bias sample should be collected rather than a 4-point composite sample.

6. Page 31, **Disposal Characterization Sampling**, 2nd paragraph - The text refers to PCBs at > 50ppm as "PCB remediation waste" and to PCBs at < 50ppm as "PCB-contaminated waste". It was EPA's understanding that all PCB-impacted materials were "PCB remediation waste" as defined at §761.3 and therefore is regulated under the federal TSCA PCB regulations. P&W has provided no documentation to support otherwise.

7. Page 31, **Miscellaneous Sampling** - It appears that P&W is proposing to characterize debris generated from demolition activities after demolition has occurred. In the event that any of these materials have been in contact with PCB-containing material, characterization must occur prior to demolition, not after. The requirement to dispose of PCB contaminated wastes based on the "as-found" criteria applies to all PCB-impacted materials, not just soils and sediments.

8. Page 34, Section 4.5.1, **Disposable Equipment and Debris** - As stated in Comment 7, it is EPA's understanding that all PCB-impacted material is "PCB remediation waste". Therefore, to indicate that wastes will be disposed of as bulk PCB remediation waste is not clear since various disposal options exist based on the PCB concentrations. As such, please clarify P&W's proposed disposition of all waste streams that will be generated. (e.g. specify the proposed disposal facility for various waste streams).

9. Page 34, Section 4.5.2, **Decontamination Rinsate** - Unless P&W proposes to sample each rinsate waste prior to treatment, an assumption that the rinsate is < 50 ppm, as indicated in the text, cannot be made.

10. Page 38, Section 5.1.5, **Disposal Characterization Sampling, Data Type** - This paragraph is confusing. It appears that the only data that will generated for disposal characterization is IA data. As stated in previous correspondence, this is not acceptable. Please clarify this paragraph.

11. Page 39, Section 5.1.6, **Miscellaneous Sampling** - P&W should include disposal "in-situ" characterization for other materials, including the concrete, if applicable.

12. Pages 40-43, **Project Organization and Responsibilities** - A organizational chart should be included and identify the key personnel by name, their affiliation, and telephone #.

13. Page 48, **Analytical Procedures, Section 5.7.2** - TAT of 2 weeks established for effluent samples may be too long. P&W should confirm that laboratory will be willing to meet 24-hr TAT as needed.

14. Inconsistencies are noted throughout this submittal. P&W should review and revise to insure consistency throughout. The following inconsistencies were noted:

    a. Page 37 indicates that a Tier II data validation will be performed on the confirmatory data; Page 50, Section 5.8.4 indicates that 5% of the final data reports will be reviewed; Page 57 indicates that 20% of the data will undergo full data validation.

    b. Page 31 states that Method 8082A will be used for PCB analysis; Table 4-1 indicates Method 8082. Further P&W's May 31, 2001 Response to EPA's March comments also indicate Method 8082 will be used.

    c. Page 28 states that 133 samples will be collected for PCB analysis; Table 4-1 indicates 121 samples will be collected; Table 4-2 indicates 117 samples for PCBs.

    d. Page 35 indicates that *aqueous* PE samples will be collected for each suite of analytes; Page 53 indicates that four PE *soil* samples will be submitted. P&W's May 31, 2001 response also indicates aqueous PE samples will be used rather than soil.

    e. Table 4-1 shows 69 composite samples will be collected for PCB; Notes 3 and 4 indicate 68 samples.

15. Page 51, Section 5.9.5, **Field Duplicates** - Text states "Field duplicates will be prepared as discussed in the FSP." EPA can find no procedure describing sampling procedures for field duplicates.

16. Page 52, Section 5.9.8, **Matrix Spike/Matrix Spike Duplicates** - For clarification, MS/MSDs can be used to measure both precision and accuracy, not just accuracy.

17. Page 51, Section 5.9.5, **Field Duplicates** - The text states "Acceptable duplicate precision for soil samples must be less than 50%". EPA assumes that P&W means that the "RPD must be less than 50%" rather than the precision. Please clarify.

18. Table 4-1, **Extraction Method Summary** - Various extraction procedures are included for the analytes of interest. Please clarify when/what criteria will determine the extraction method that will be employed for this project.

19. Table 4-1, **Extraction Method Summary** - Only soil/sediment matrices are shown. Please revise to include other matrices that will be analyzed during this project, including water and concrete.

20. Having three (3) tables labeled 4-1 is confusing. It would be helpful if the tables were renumbered in some fashion since these are separate tables.

21. Table 4-2 - Numbers specified for COCs other than PCBs are not correct. For example the frequency for collection of field duplicates is 1/20; with a total of 74 samples the number of field duplicates should be 4, not 2. Please check all numbers and revise accordingly.

22. Table 4-3 appears to include COCs that will not be analyzed during this project. This table should only include those analytes that are part of this project. Please revise accordingly.

23. Table 5-1 - See previous comment.

24. Table 5-1, Note 3 - It is unclear if the analytes listed here are COCs at this site. If so, there is no discussion in the QA/QC portion regarding the use of the data as it relates to these analytes with regard to the project action limits versus the project quantitation limits.

25. Table 5-2 - See Comment 23, above.

26. Table 5-4 - EPA does suggest that field instruments be checked at more frequent intervals than proposed here. For example, P&W may check the calibration of the pH meter initially, followed by checks during and at the end of the day.

27. Table 5-5 shows precision/accuracy for the field pH measurements of ±1 pH S.U. These allowances appear to be substantial for pH; a more reasonable number would be ±0.1 pH S.U.

May 31, 2001 Response to EPA March Comments

28. With regards to P&W's response to K.T. General Comment 1 - regardless of the public notice that P&W has undertaken to satisfy the state requirements, it is my understanding that EPA will also require formal public notification on this site.

29. K.T. Specific Comment 16 - As stated in comment 7, above it is my understanding that all PCB-impacted materials meet the definition of "PCB remediation waste." If P&W has documentation to support otherwise, it should be submitted for EPA's review. Regardless, P&W may still request disposal of PCB-impacted material at < 50ppm in a state permitted hazardous and/or non-hazardous waste landfill. EPA still requests that specific disposal information regarding each waste stream be included in the RAWP.

30. K.T. Specific Comment 20 - In its response, P&W indicates that the RAWP was revised to provide for a 4-point composite sample representing 1,600 square-foot area. As in EPA's original comment, P&W provides no justification for this approach. Justification is required that would support this type of sampling scheme. Reference to the *Verification Sampling Guidance Manual* is not sufficient. This document was to support EPA's PCB Spill Cleanup Policy which is not applicable at this site.

31. K.T. Specific Comment 26 - See comment 30.

32. K.T. Specific Comment 27 - P&W's response includes reference to 3540C or 3541 as extraction methods for this project. This is inconsistent with the information provided in Table 4-1. EPA does suggest that 3550 may not be a sound method for sediments due to the high organic content of the materials which could lower the PCB extraction efficiency for this method.

July 13, 2001 Response to CTDEP

33. Attachment 1 includes a revised Table 4.1. The methods listed should include references for all matrices of interest, including soils, sediments, water, and concrete.

34. Revised Table 4.1 also appears to contain errors in the referenced methods. For example 3510C is a separatory funnel liquid-liquid extraction procedure, which does not appear to be applicable to soils and sediments. Method 352C0 does not exist to EPA's knowledge.

July 26, 2001 Response to CTDEP

35. Confirmatory sampling within the wetland areas appear to have changed such that the grid sampling is comprising a larger area. As discussed in previous correspondence, EPA is concerned over the # samples/area given the heterogeneity of the PCB distribution in this area. Accordingly, unless P&W can provide a sound justification for its sampling scheme, this sampling approach (grid size/sample) is not acceptable in the wetlands and a

smaller sampling spatially will be required.

36. Table 5-1 contains TPH methods for both ETPH and 418.1. CTDEP indicated that ETPH was the method of preference. Accordingly, Method 418.1 should be eliminated from the Table unless P&W is still conducting this test.

General Overall Comments

37. The revised submittals appear to include additional procedures for on-site air monitoring both during work and idle time. The procedures address total dust and PM-10 dust. As the driver at the site is PCB-contaminated materials, P&W should provide a justification that the proposed air monitoring is sufficient and procedures for PCB monitoring is not necessary during this project.

38. A revised Dust Control Plan dated May 2001 was submitted. Normally , the 150 $\mu g/m^3$ standard is over a 24-hour period. Page 1-1 of the plan indicated that it is a time-weighted average over a single 1-hour period. Please clarify this difference with a justification to support this standard.

39. The RAWP did not indicate a thorough understanding of the concept of data quality objectives (DQOs), Data Quality Indicators (DQIs) the and measurement performance criteria (MPC), as discussed in the *EPA-NE QAPP Manual Sections 7.1 and 7.2*. DQOs are qualitative and quantitative statements that specify the quality of the data required to support decisions made during the project. For example, the 2 main objectives that are not included here may be:

    a. The generation of high quality data that is necessary to support a final risk-based decision at the site; and
    b. The generation of data sufficient to insure that initial project action limits are met.

    The ability to generate data to meet DQOs is evaluated through the process of identifying the data quality indicators (DQIs...formerly referred to as PARCCS parameters) to be evaluated, setting MPC for each of the DQIs, and defining the QC samples to be collected to assess whether or not the MPC are met. Then, a sampling process design is developed and both sampling and analytical procedures are chosen that will support achieving the defined PQOs and assessing the MPC. It is unclear if the MPCs that have been specified in Tables 5.2 and 5.3 achieve that goal. The MPCs set for the DQIs are not defined by the standard laboratory methodologies. The MPCs must be set initially, and then both sampling and laboratory methods are selected (from existing methodologies, after modifying existing methodologies, or after developing new procedures) capable of meeting (or providing more stringent criteria than) the MPCs. P&W should review all protocols, methodologies, and criteria to insure that the overall goals for this project can/will be met.

40. Instead of multiple revisions, it will be extremely helpful to receive a final document containing all the changes made to date.

41. The latest revision to the RAWP should reflect the latest date when it was revised; all documents still have the original 11/20/00 date at the bottom of every page.

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New England

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Date: August 10, 2001

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TOTAL PAGES INCLUDING COVER PAGE: 9

MESSAGE: Please call me if something goes wrong with this transmission.